

FIG. 1

0998048-101801

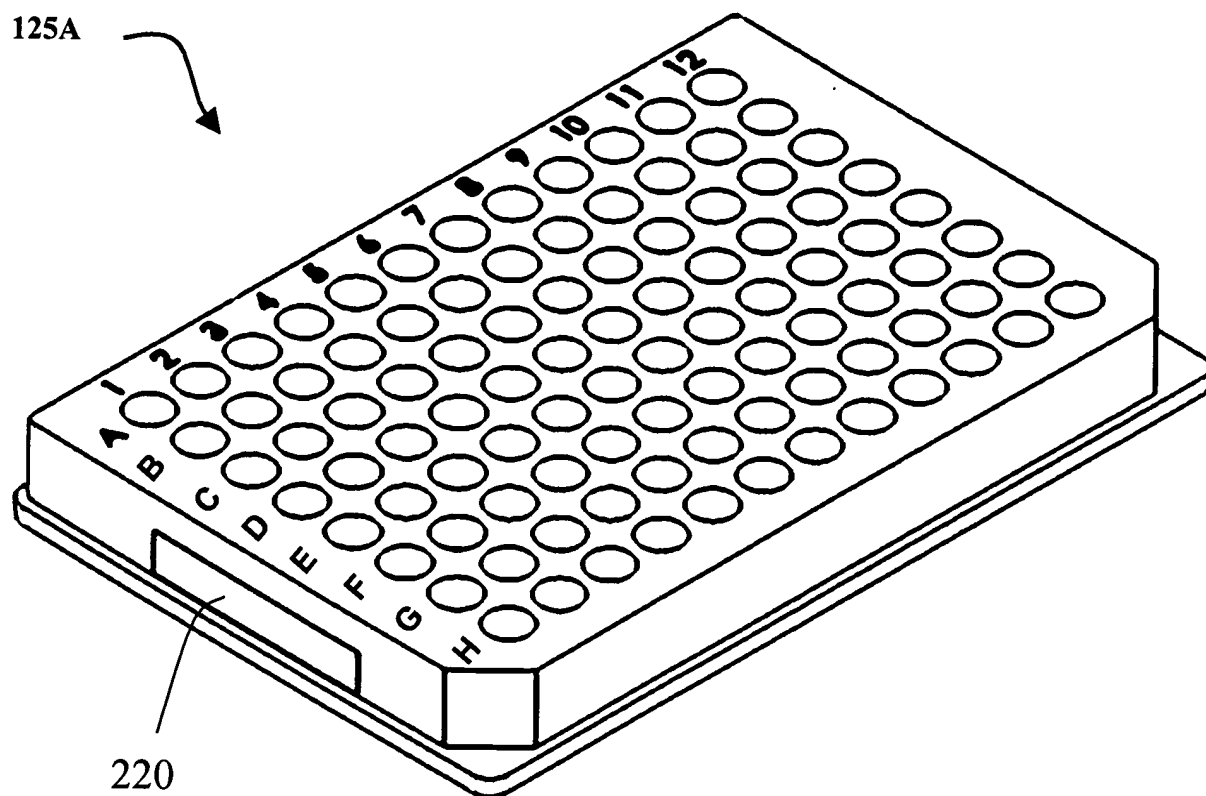
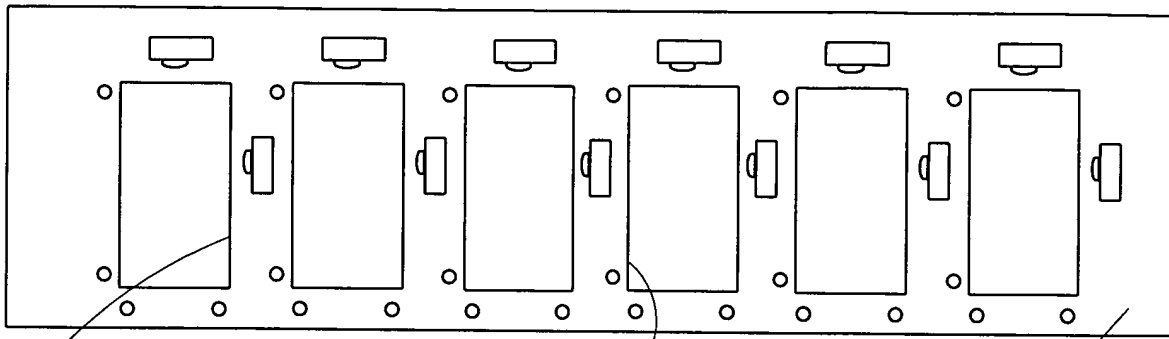


FIG. 2

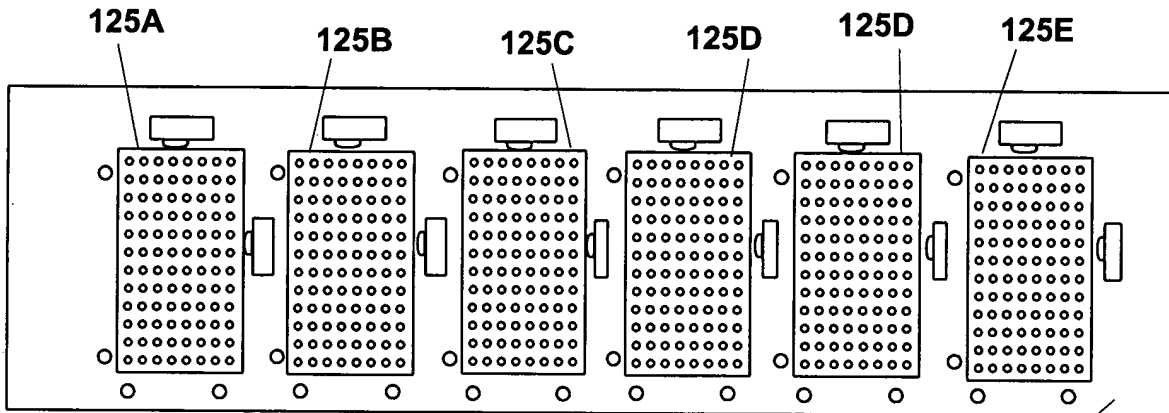


131

131

129

FIG. 3



125A

125B

125C

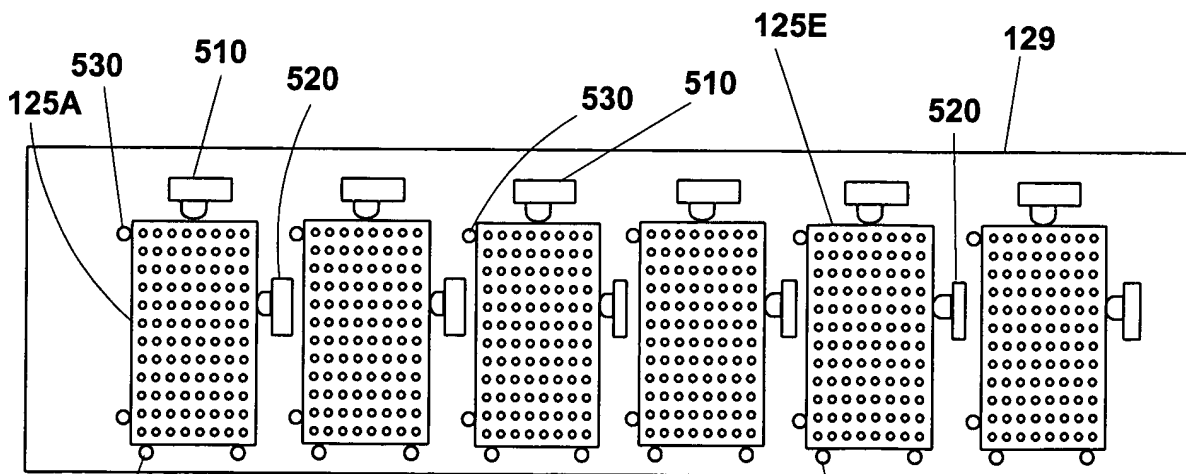
125D

125D

125E

129

FIG. 4



125A

530

510

520

530

510

125E

520

129

530

FIG. 5

530

FIG. 3

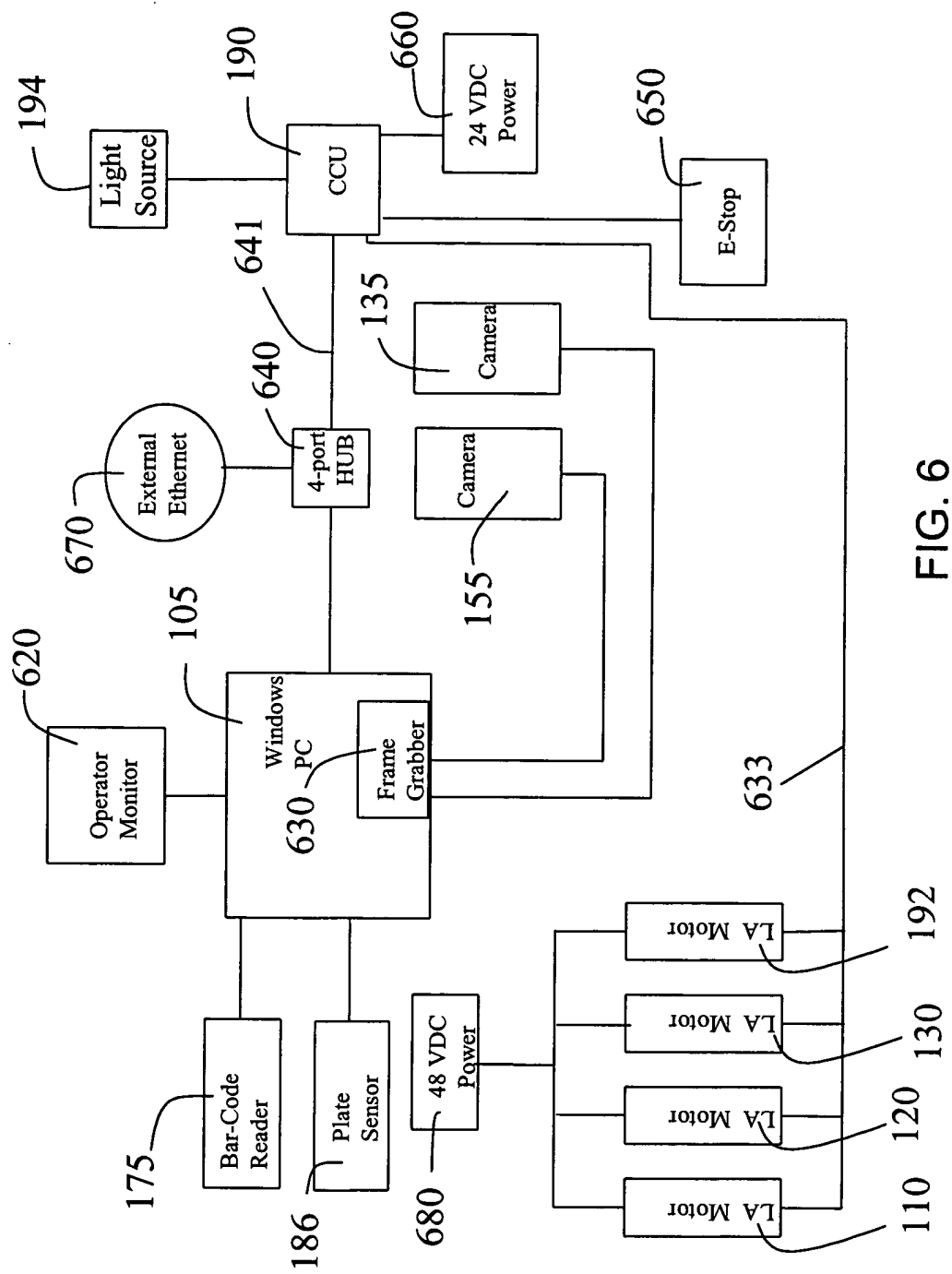


FIG. 6

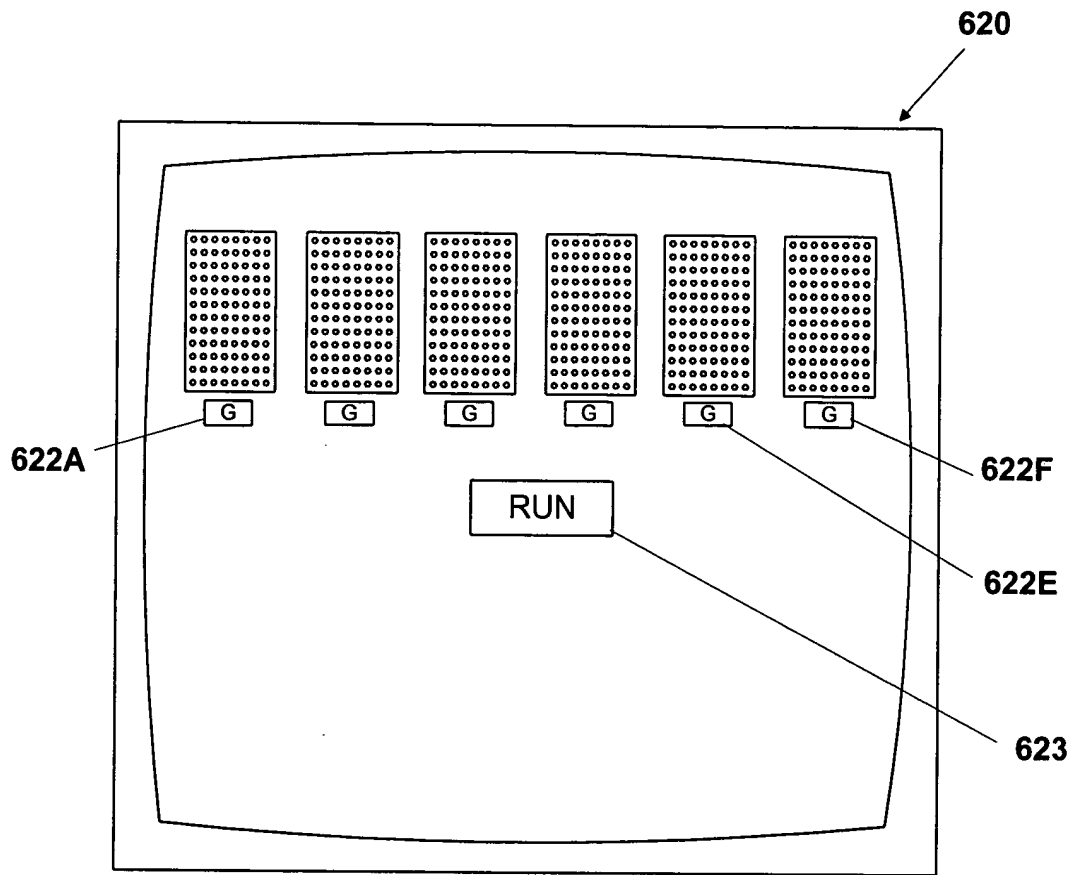


FIG. 7

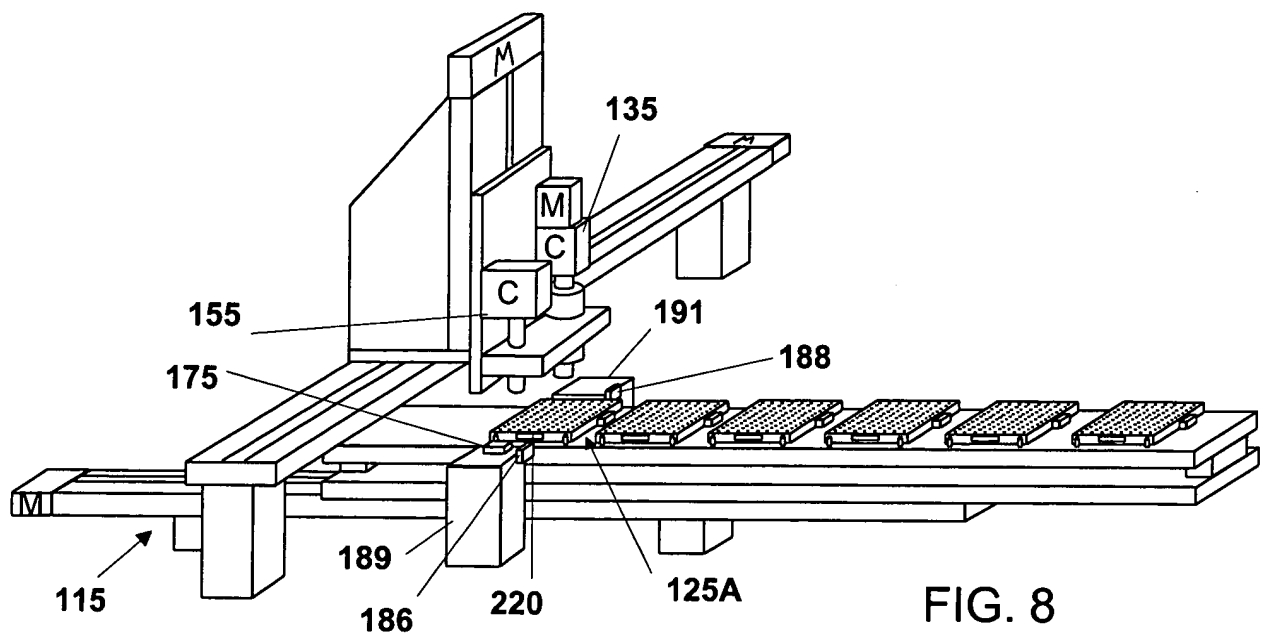


FIG. 8

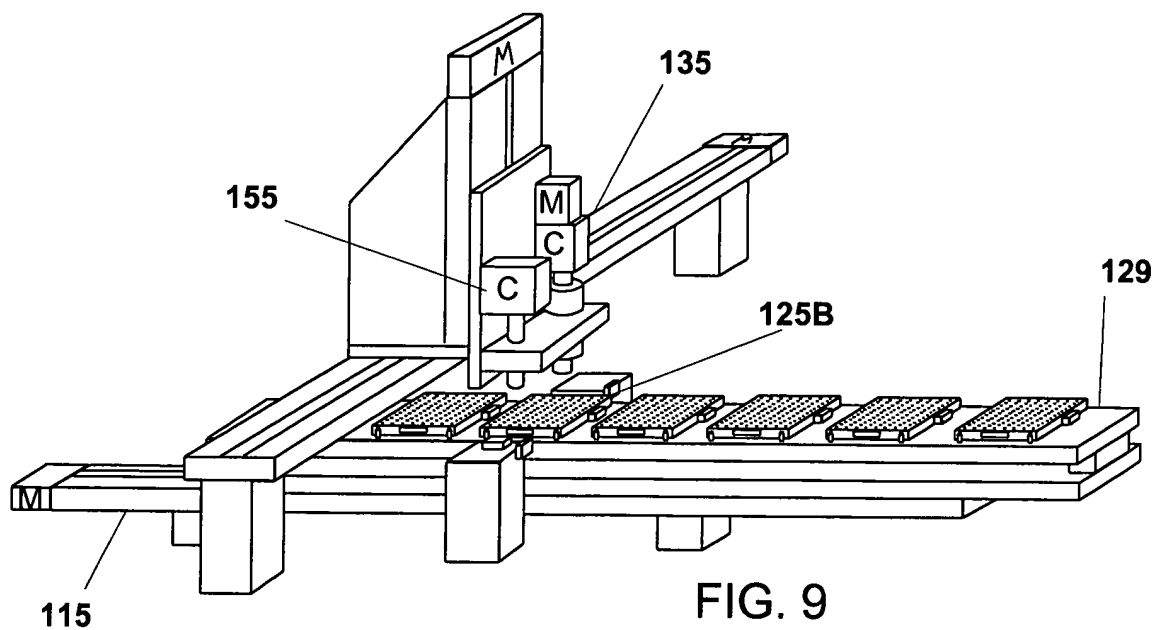


FIG. 9

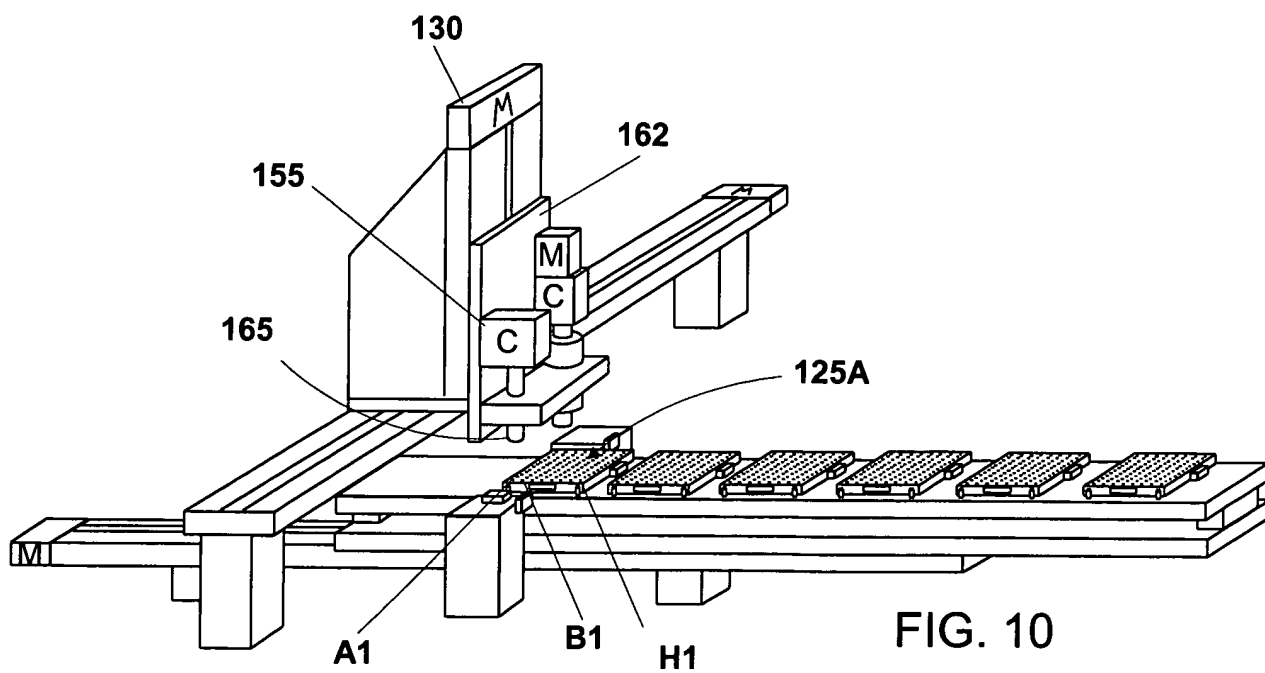


FIG. 10

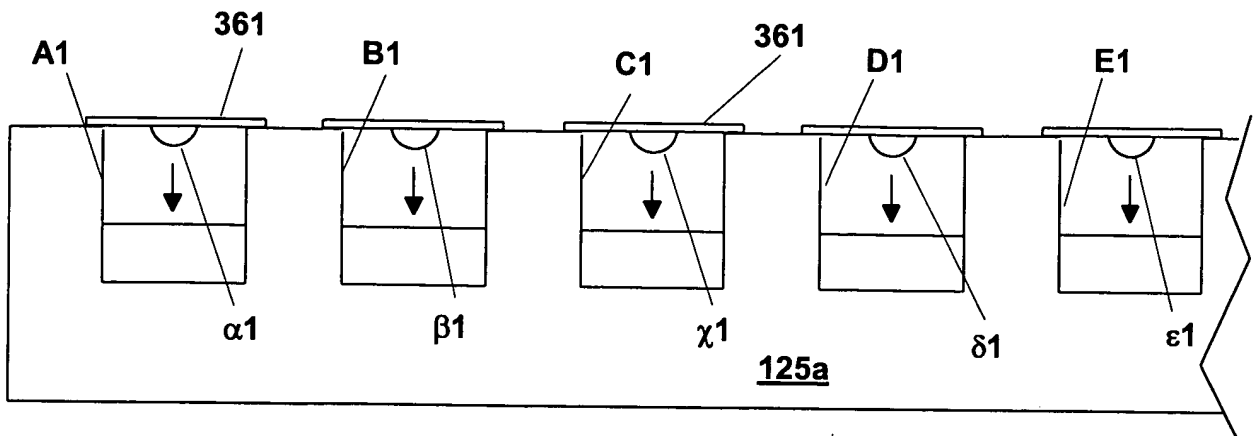


FIG. 11

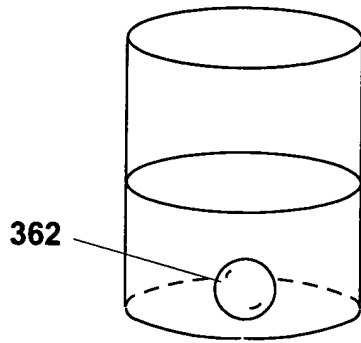


FIG. 12

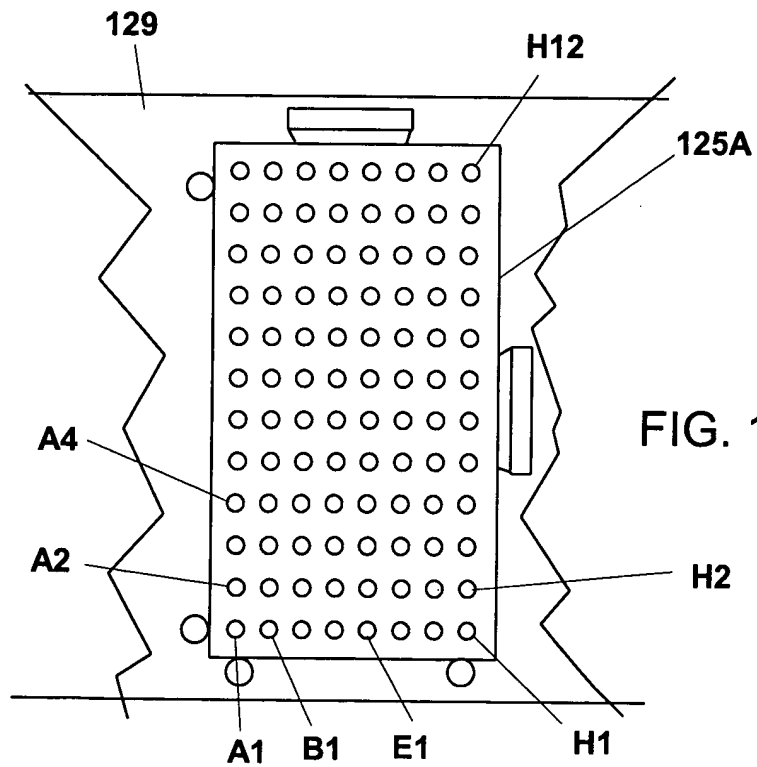


FIG. 13

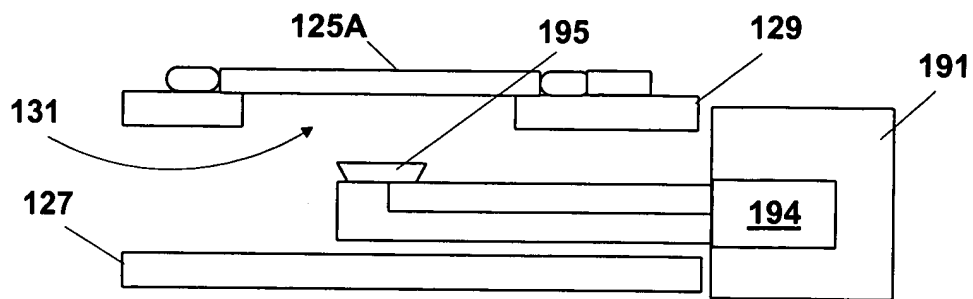


FIG. 14

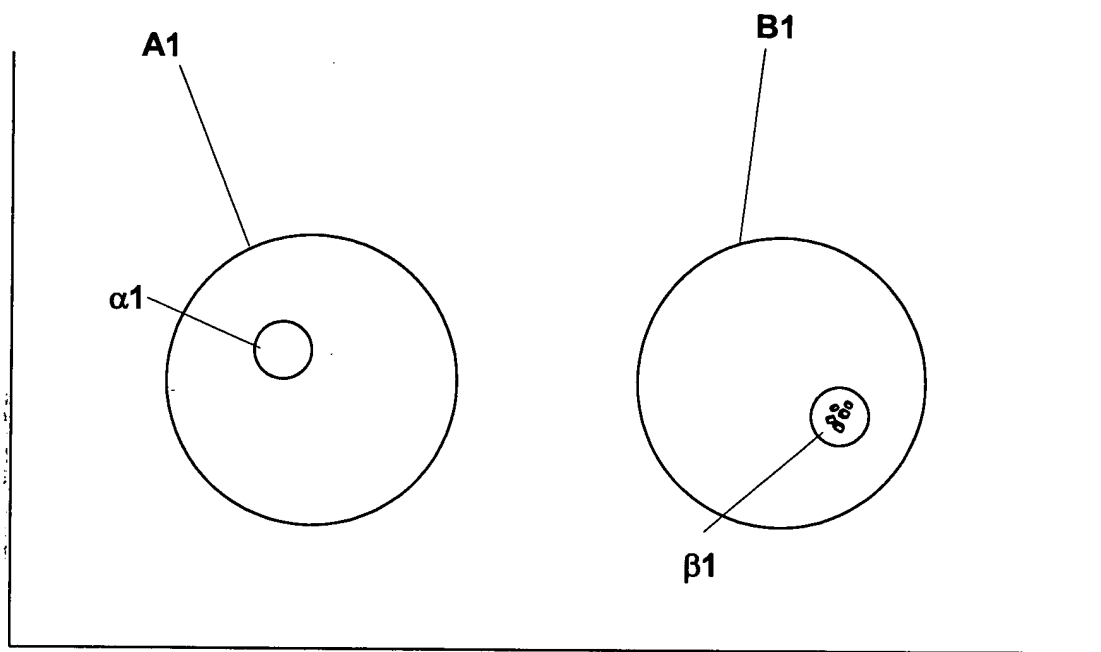


FIG. 15

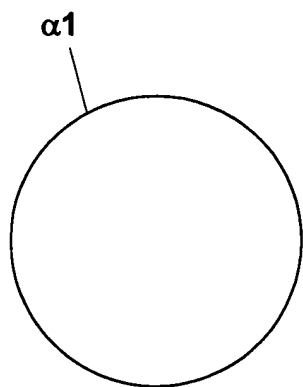


FIG. 16

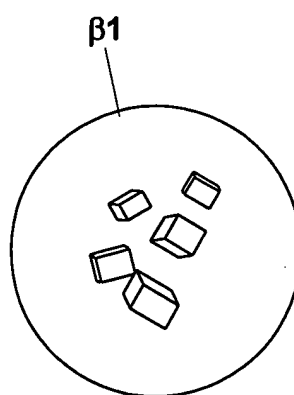
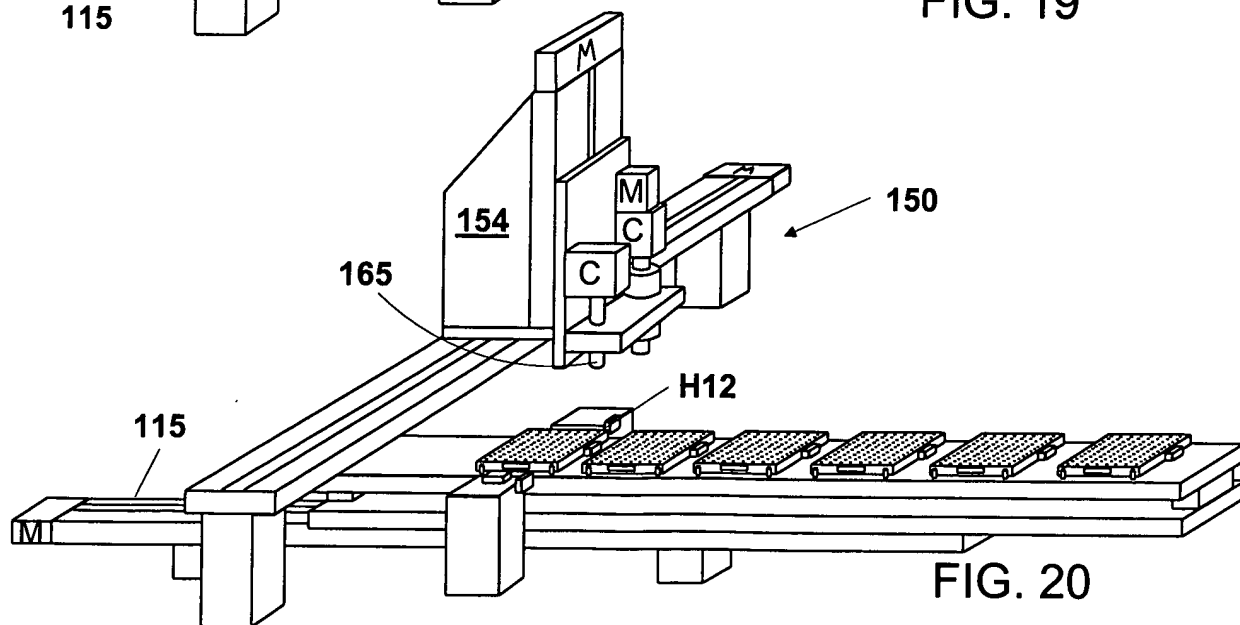
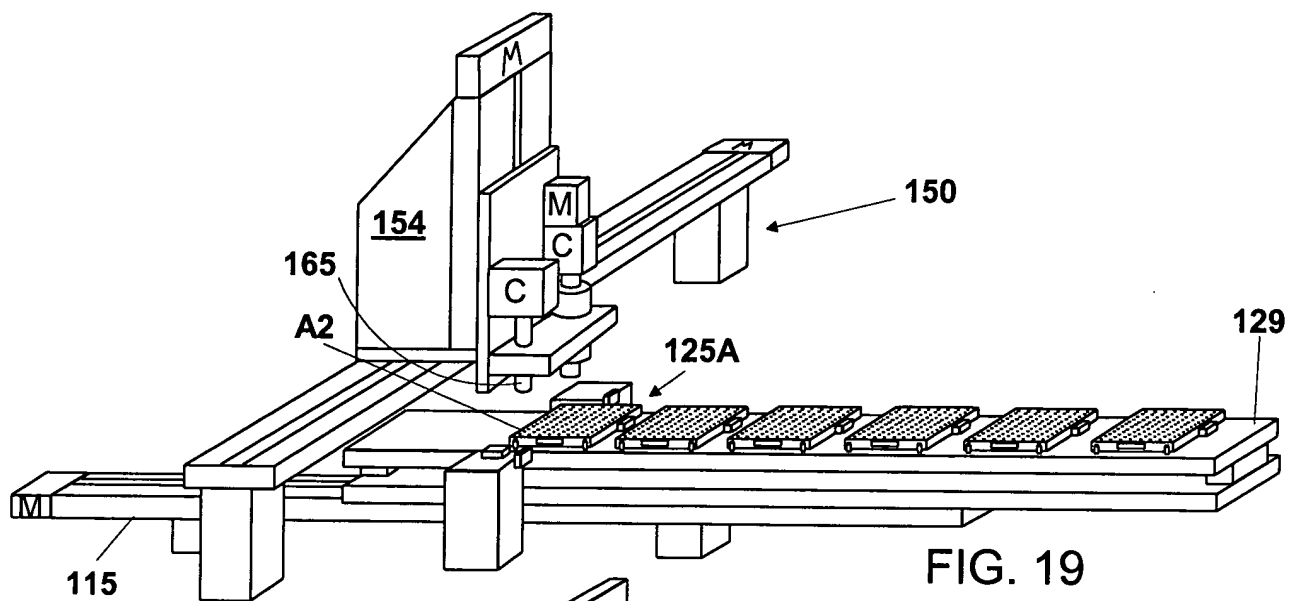
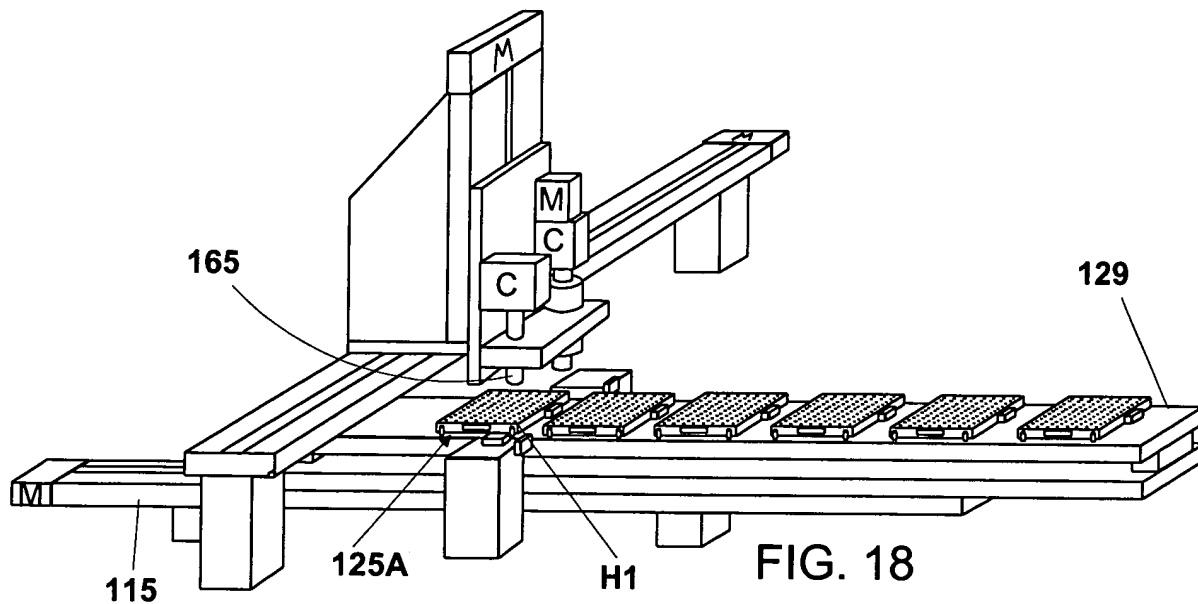


FIG. 17



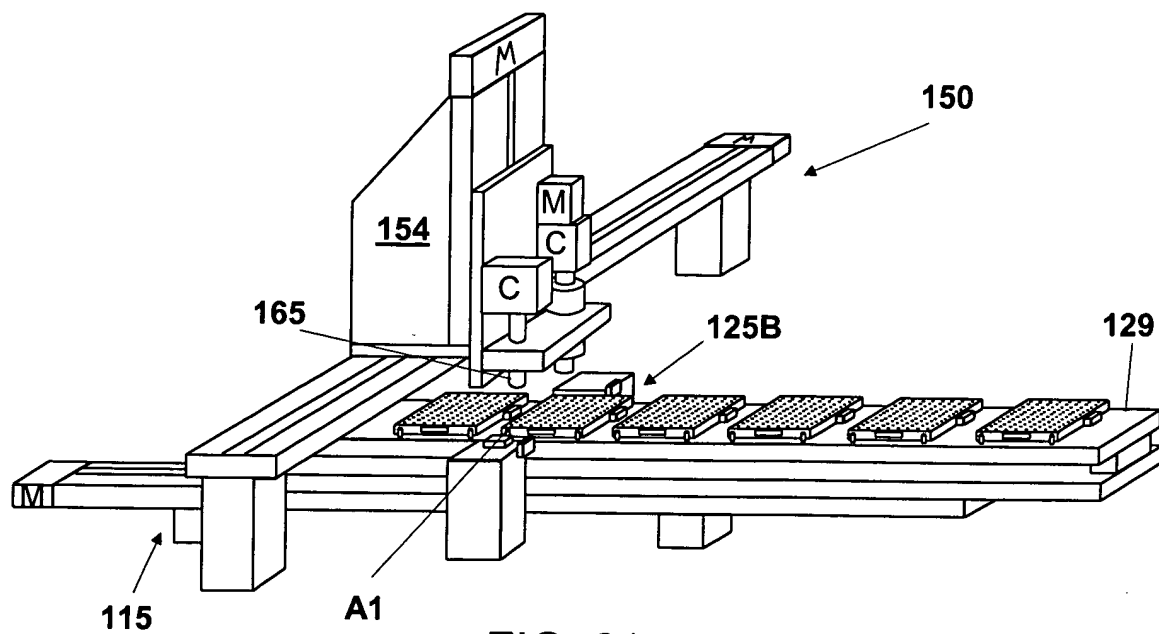


FIG. 21

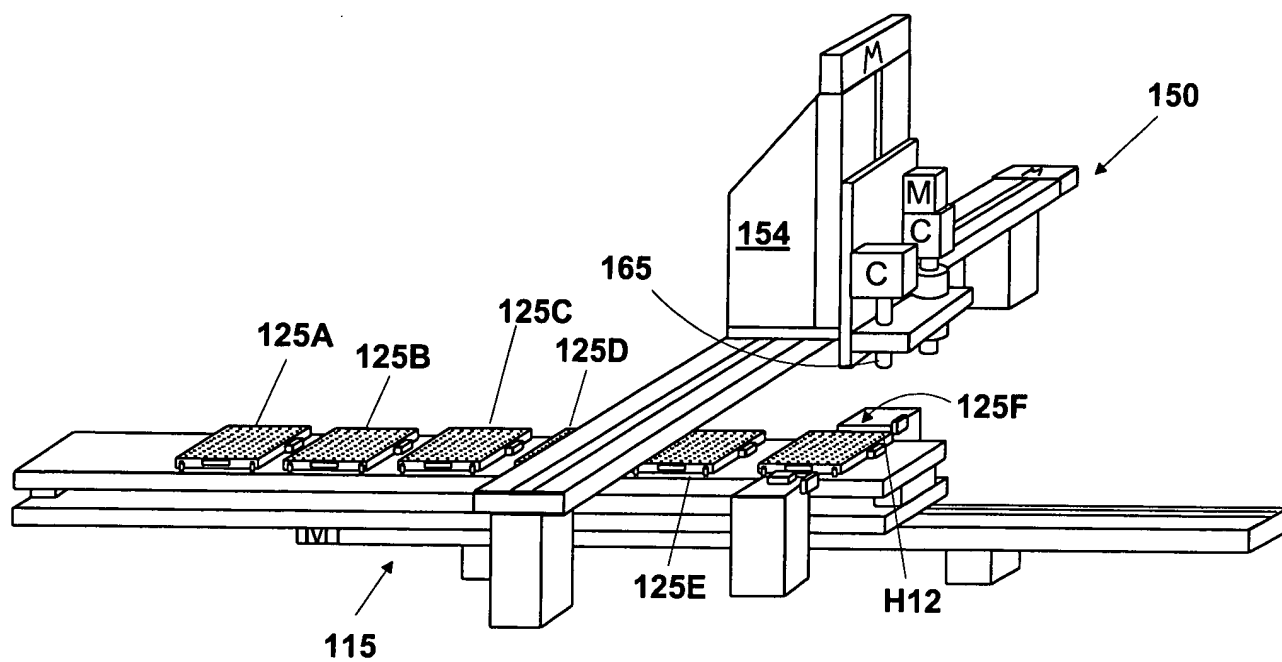
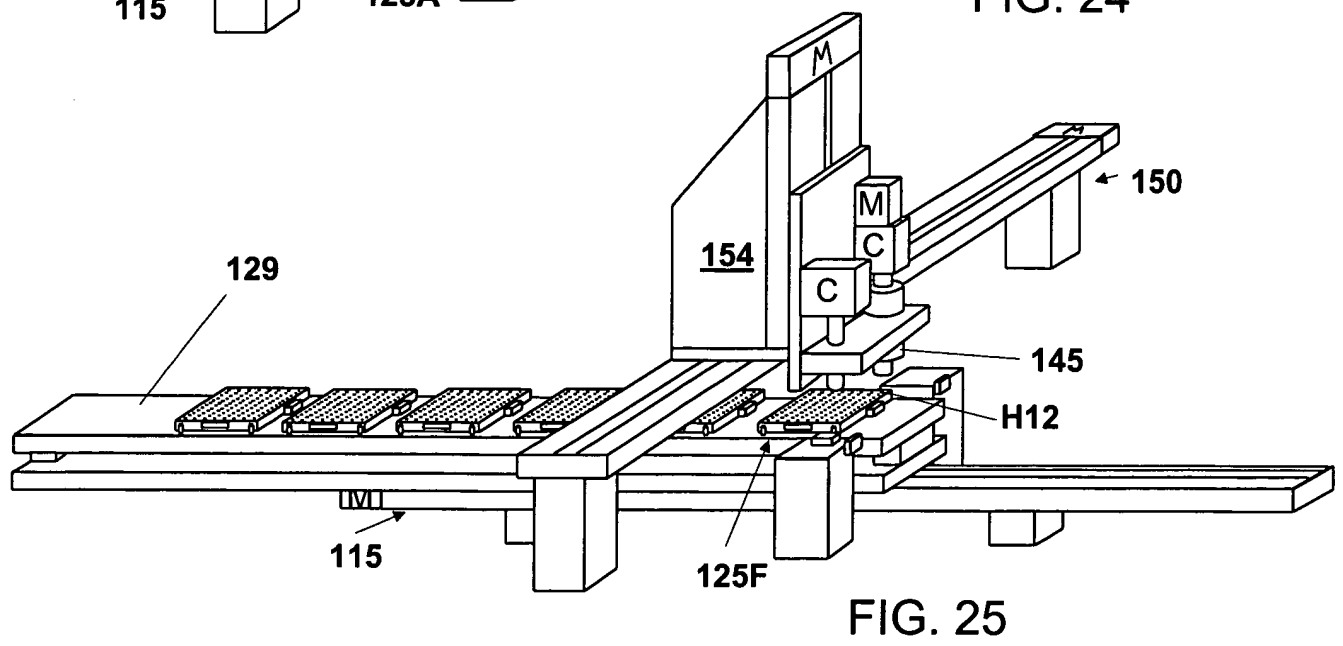
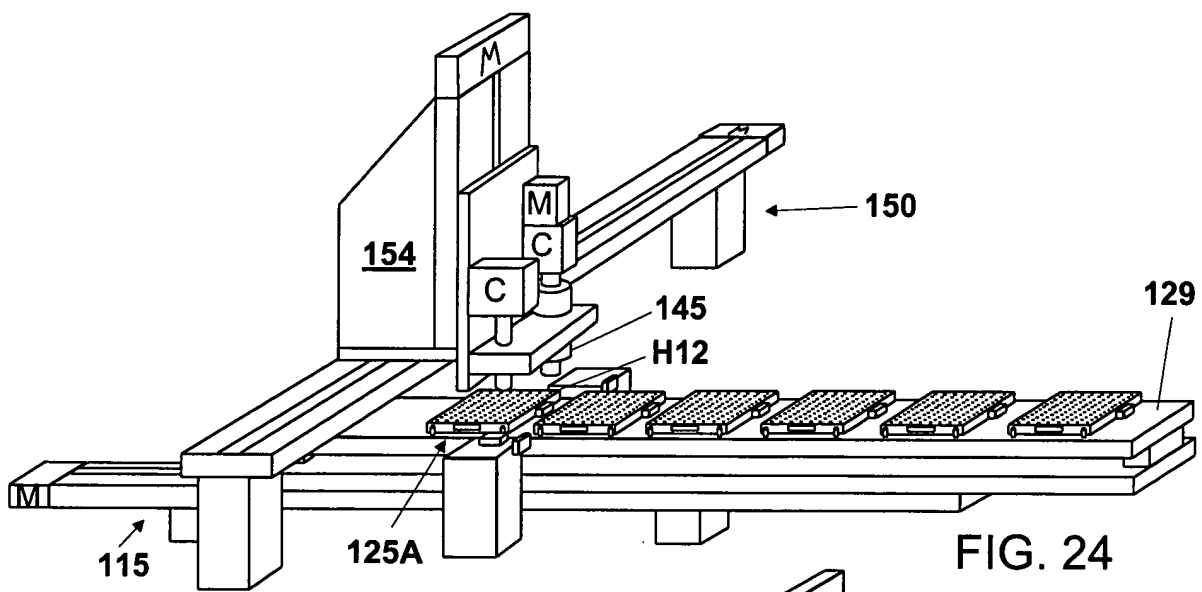
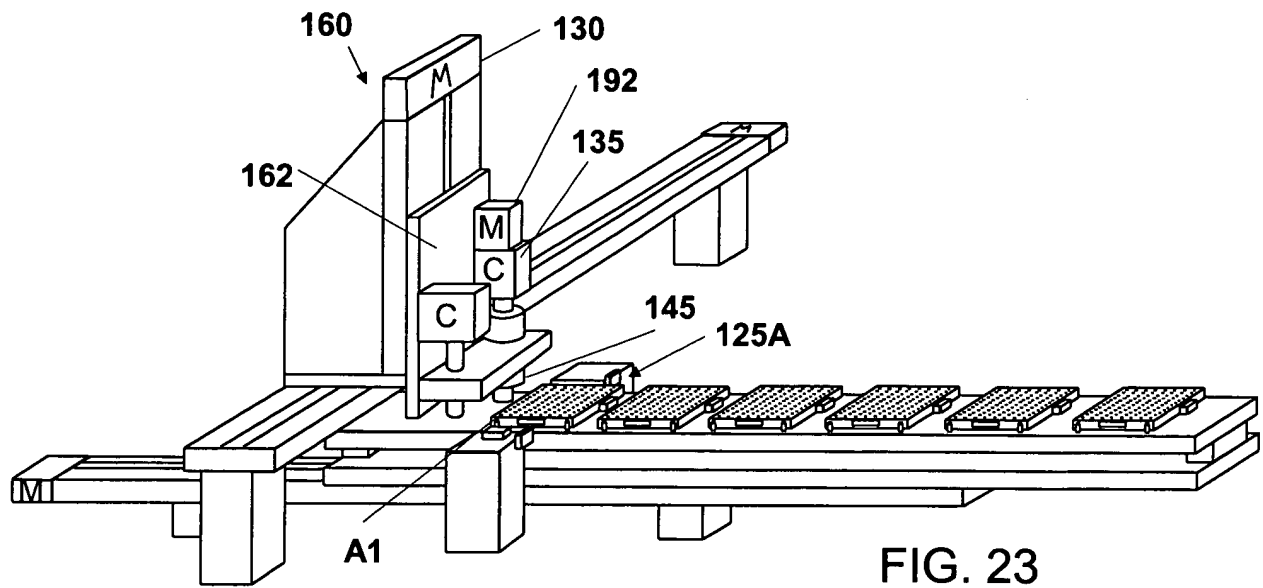


FIG. 22



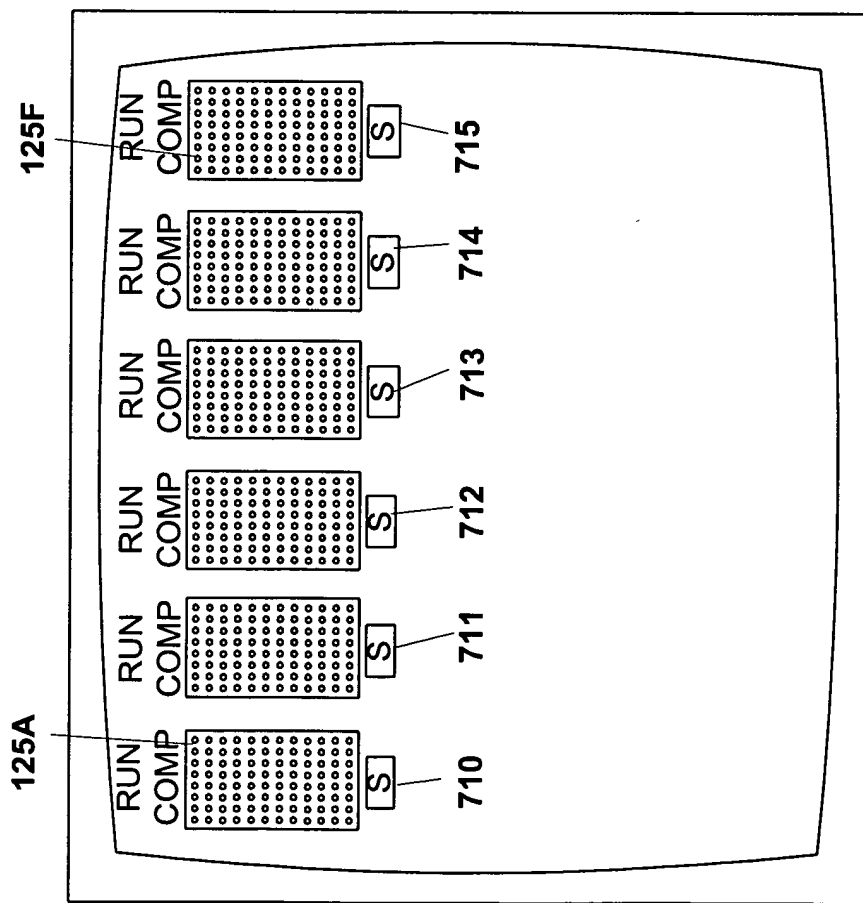


FIG. 26

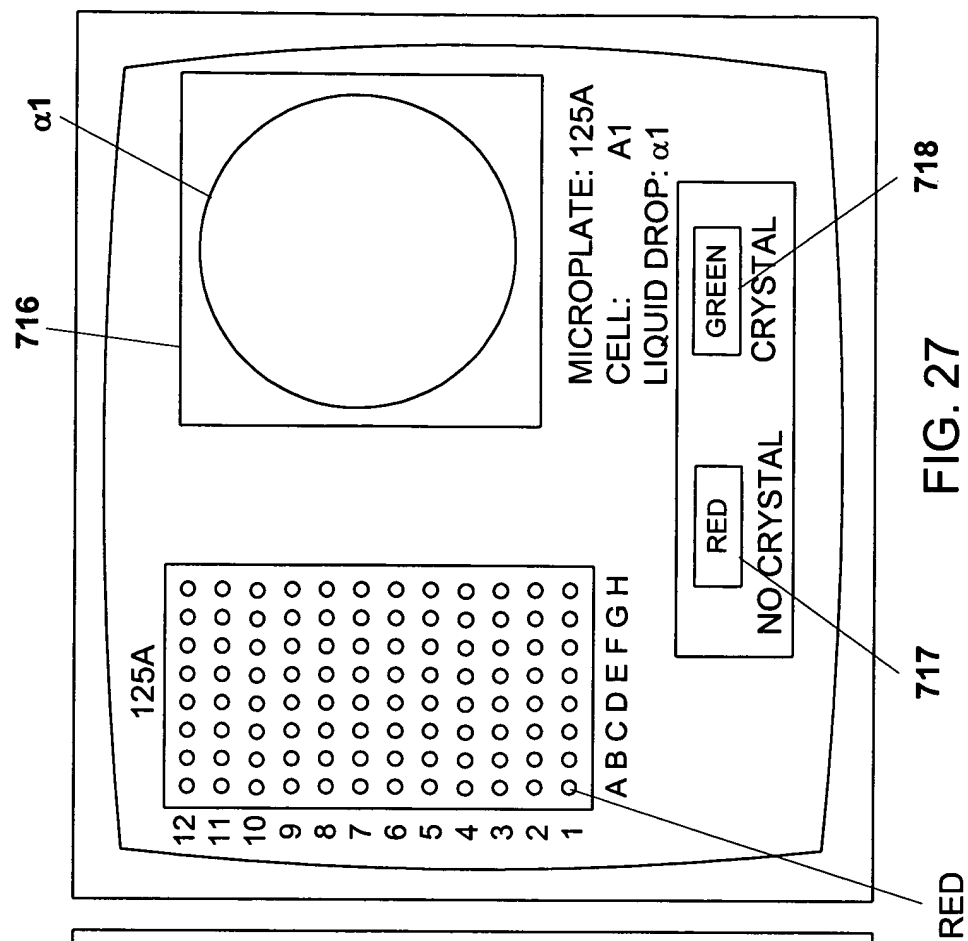


FIG. 27

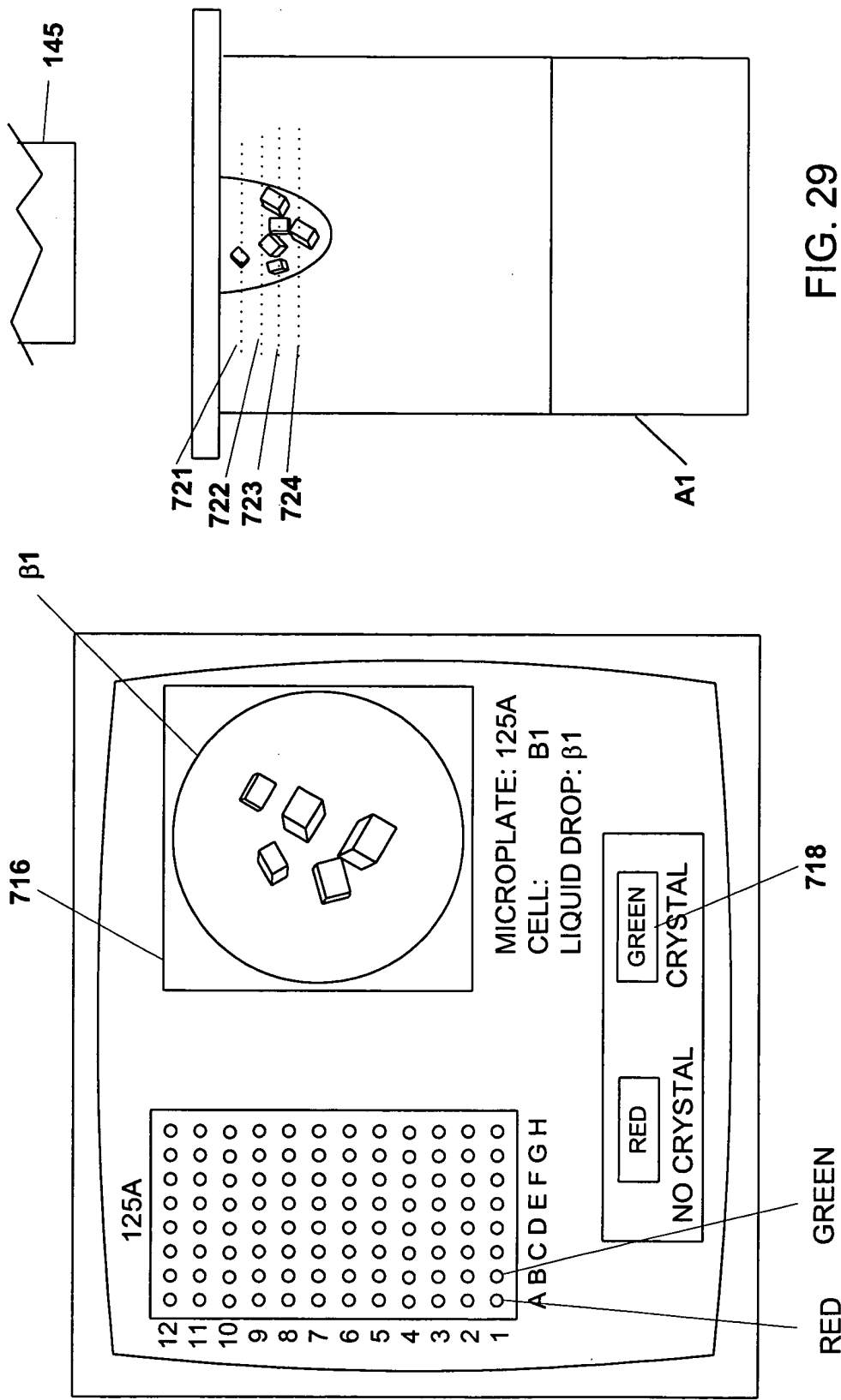
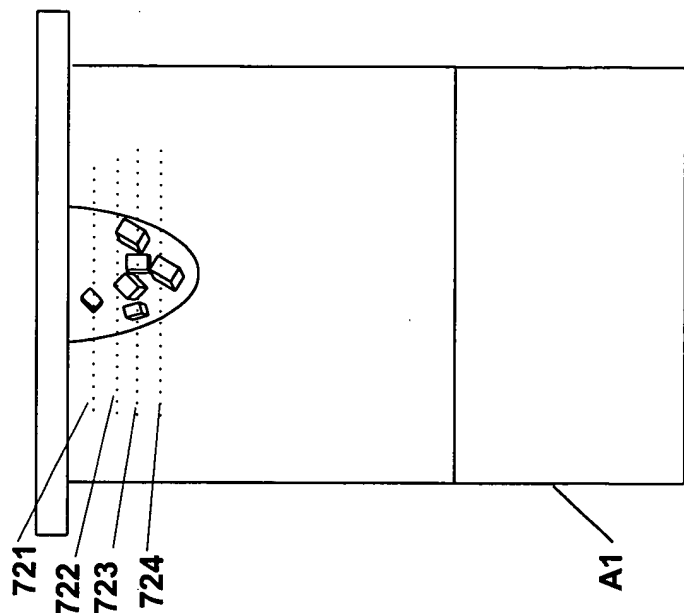


FIG. 28

FIG. 29



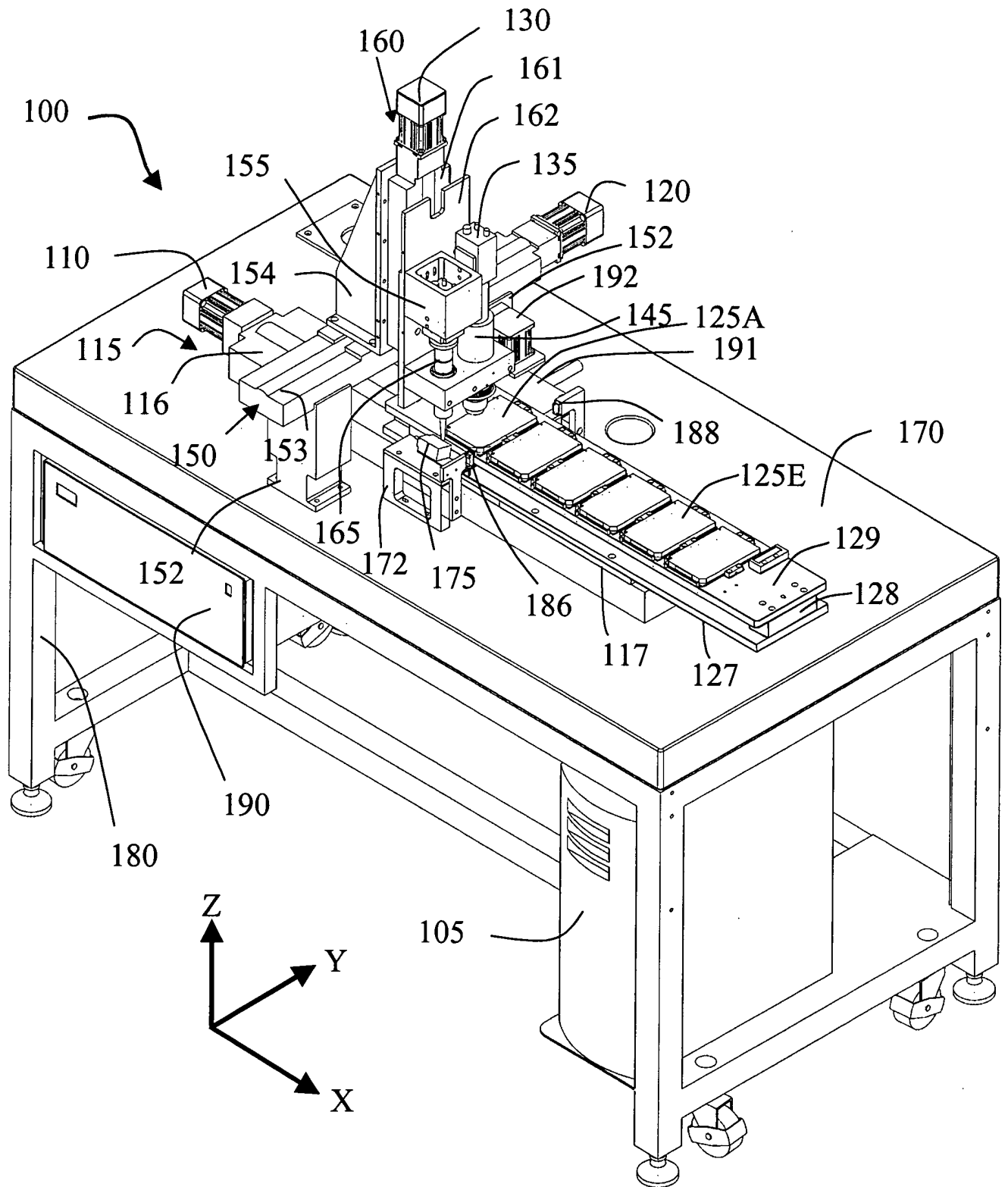


FIG. 30

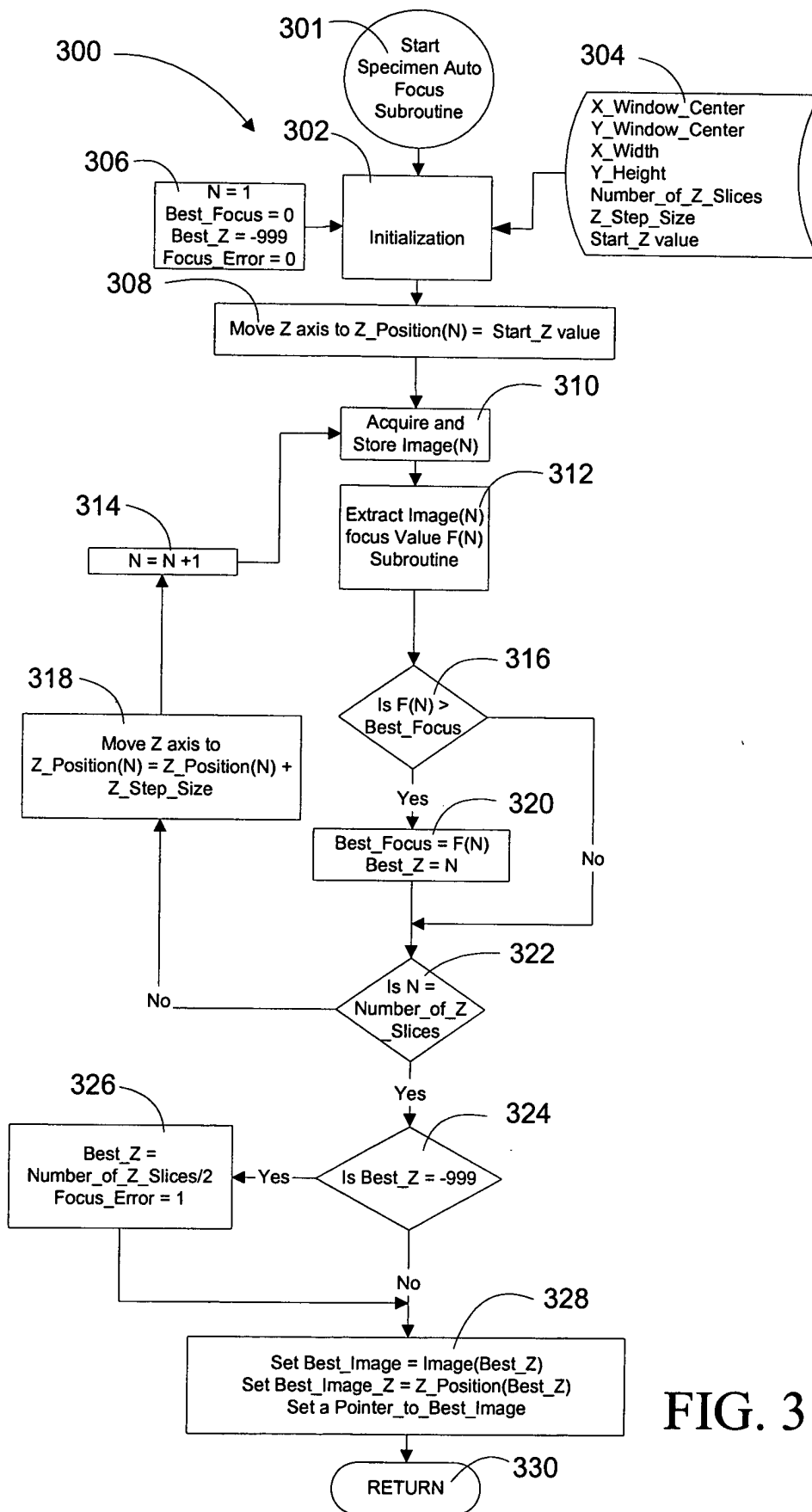


FIG. 31

FIG. 32

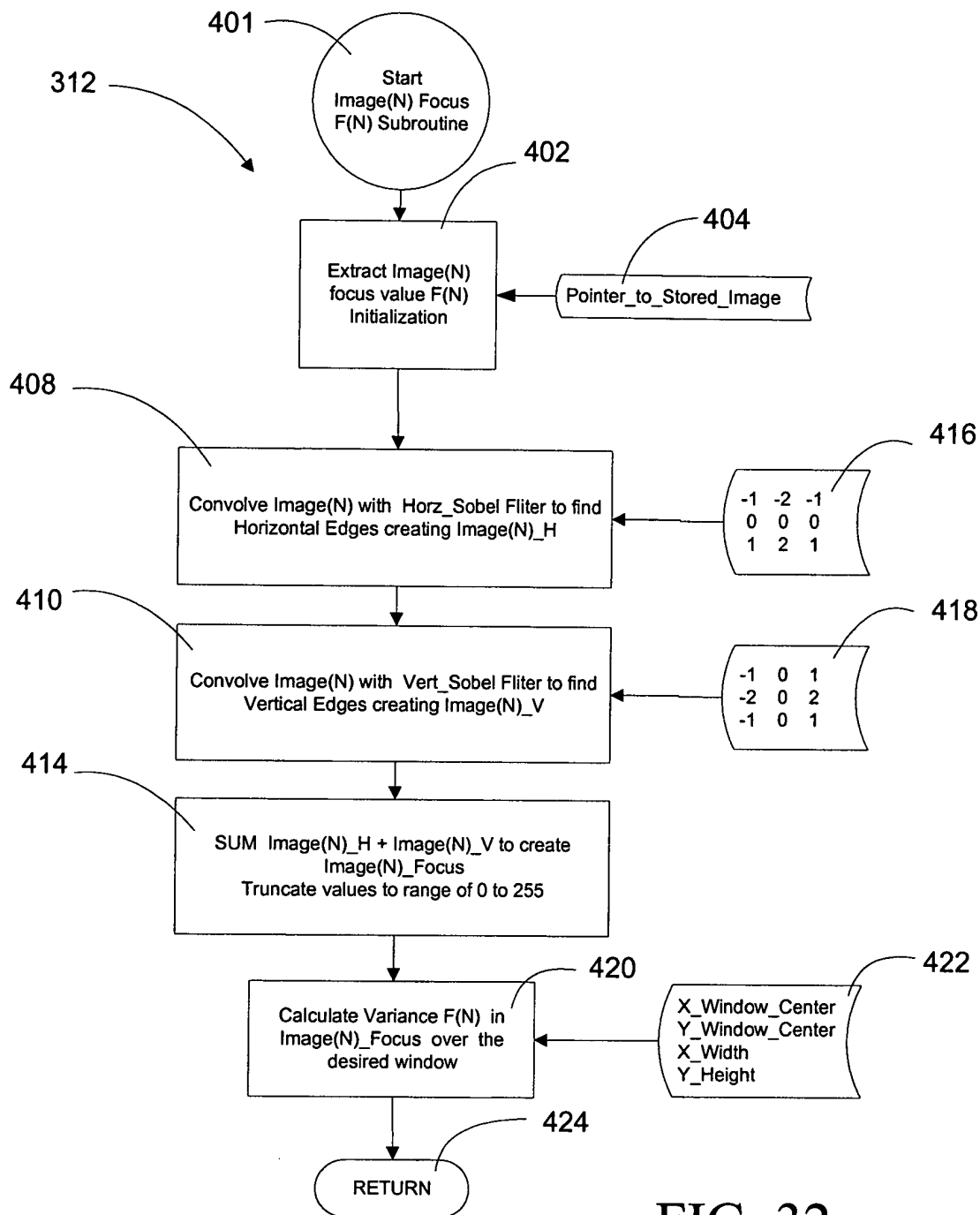


FIG. 32

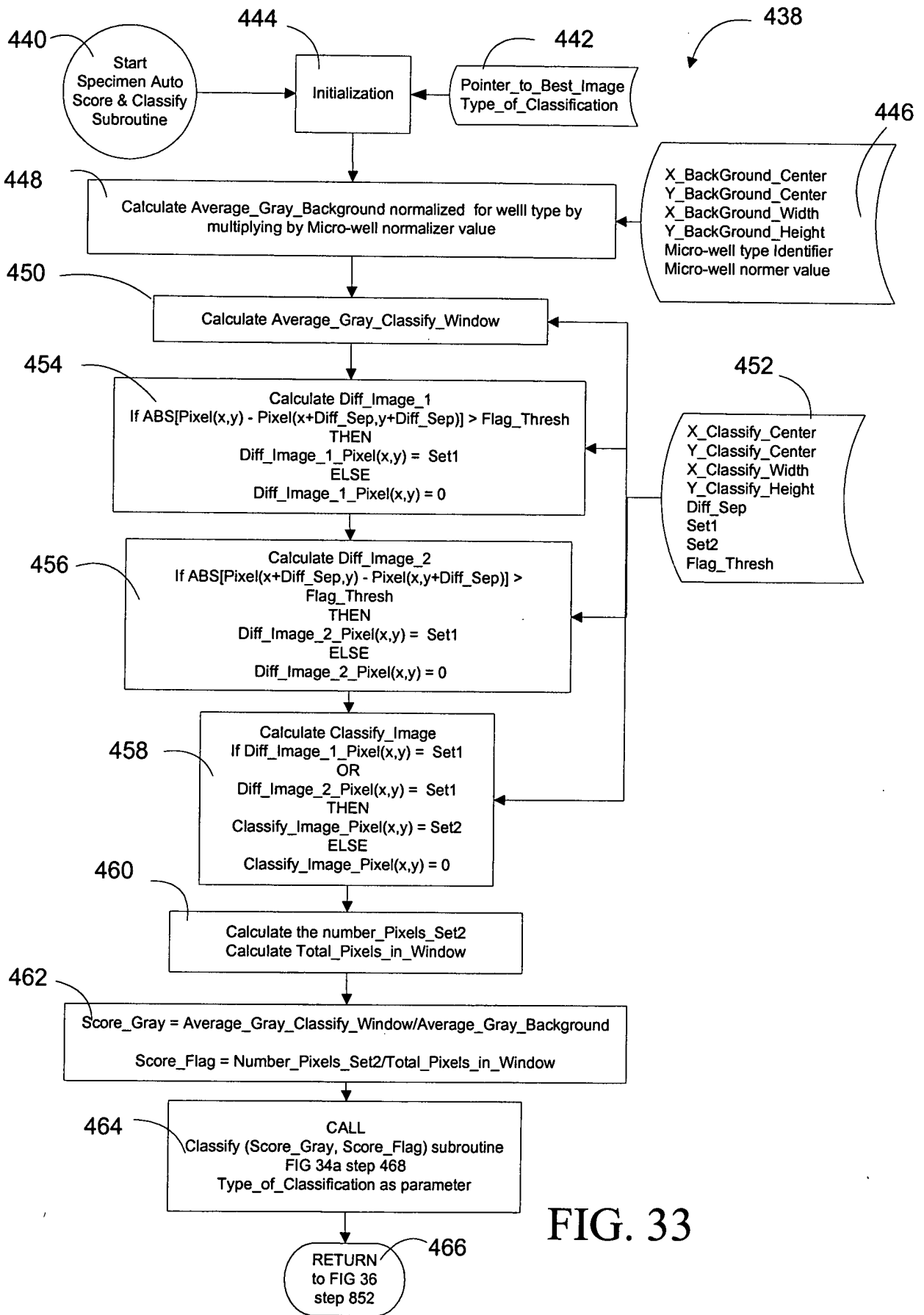


FIG. 33

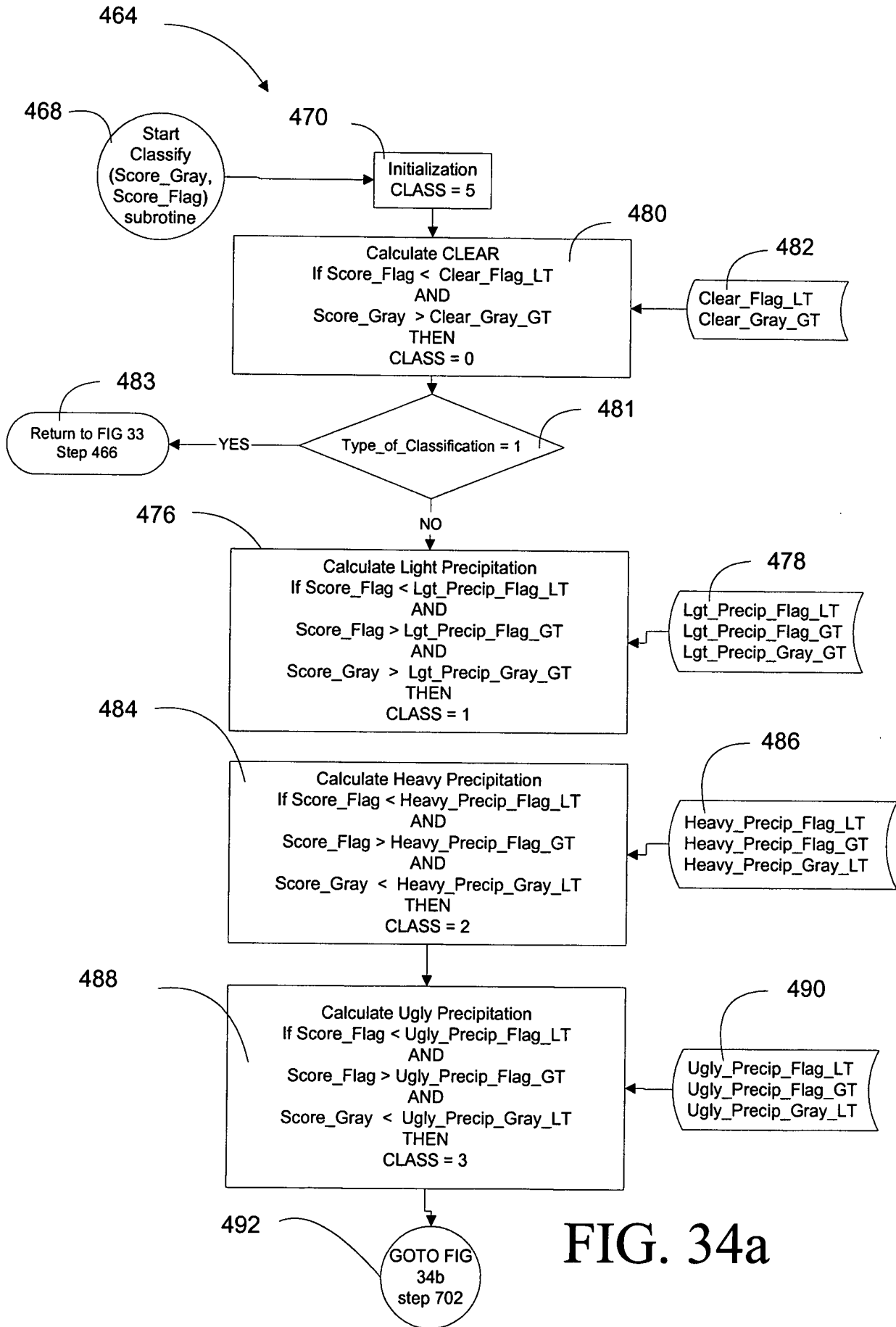


FIG. 34a

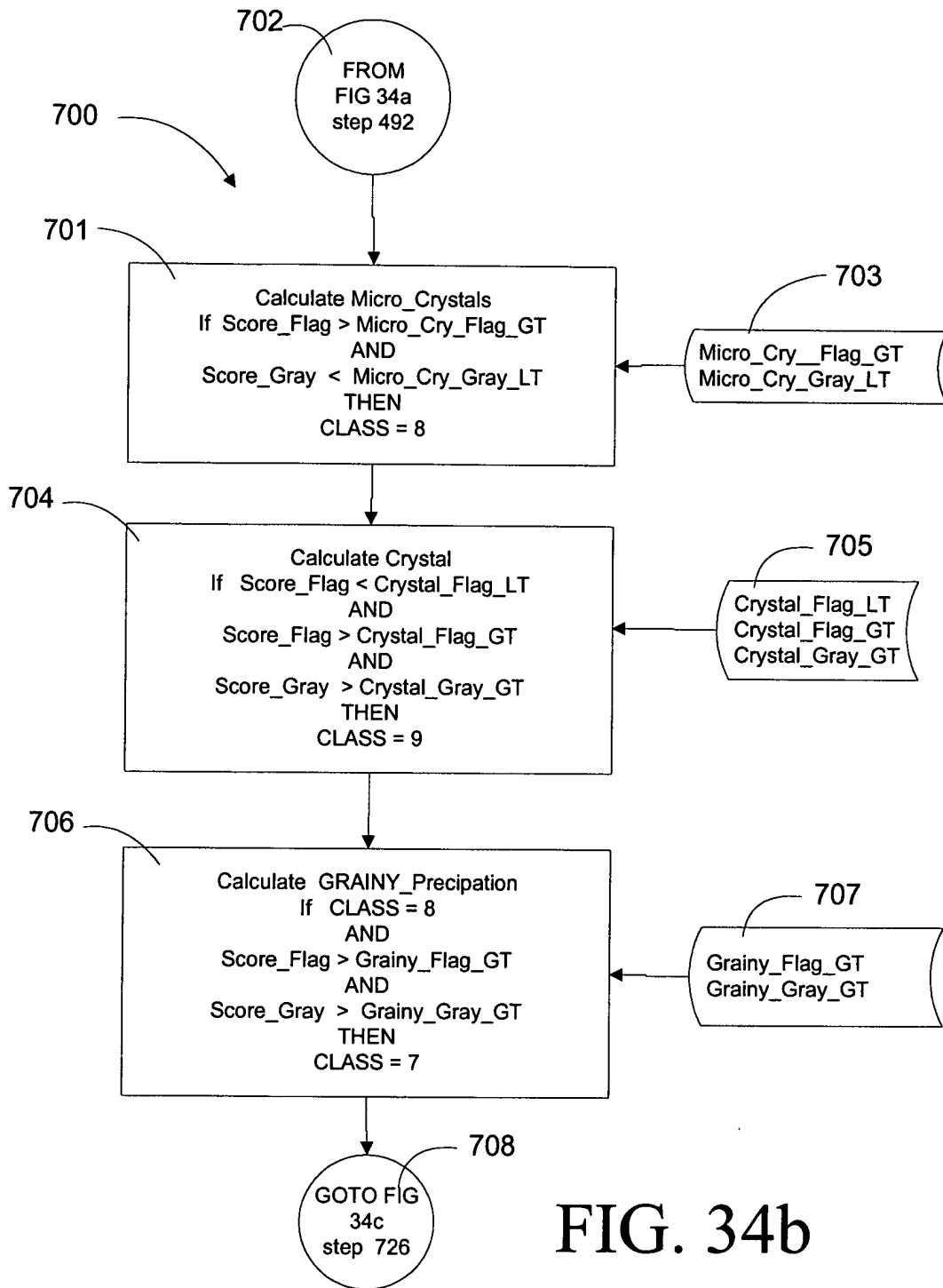


FIG. 34b

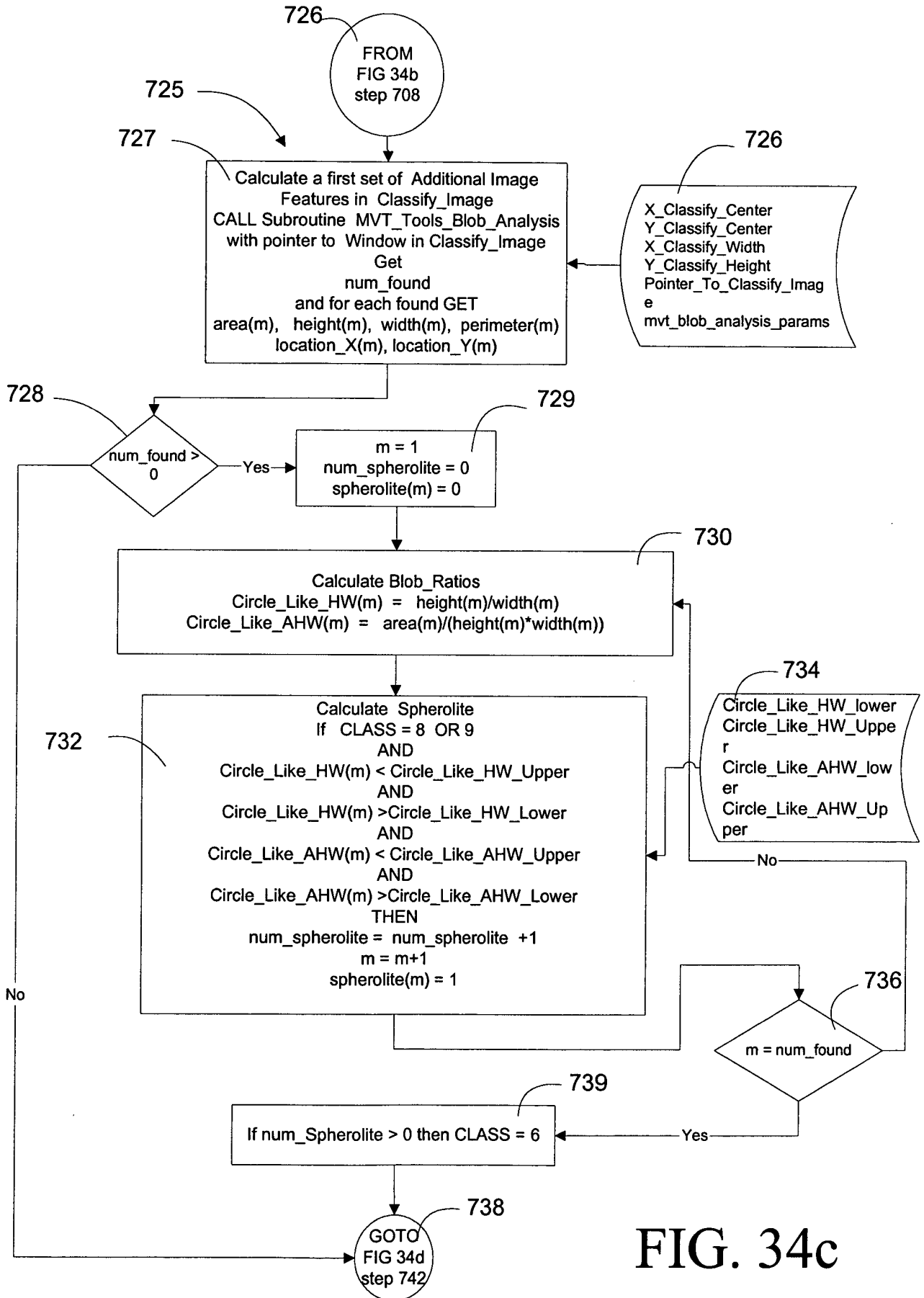


FIG. 34c

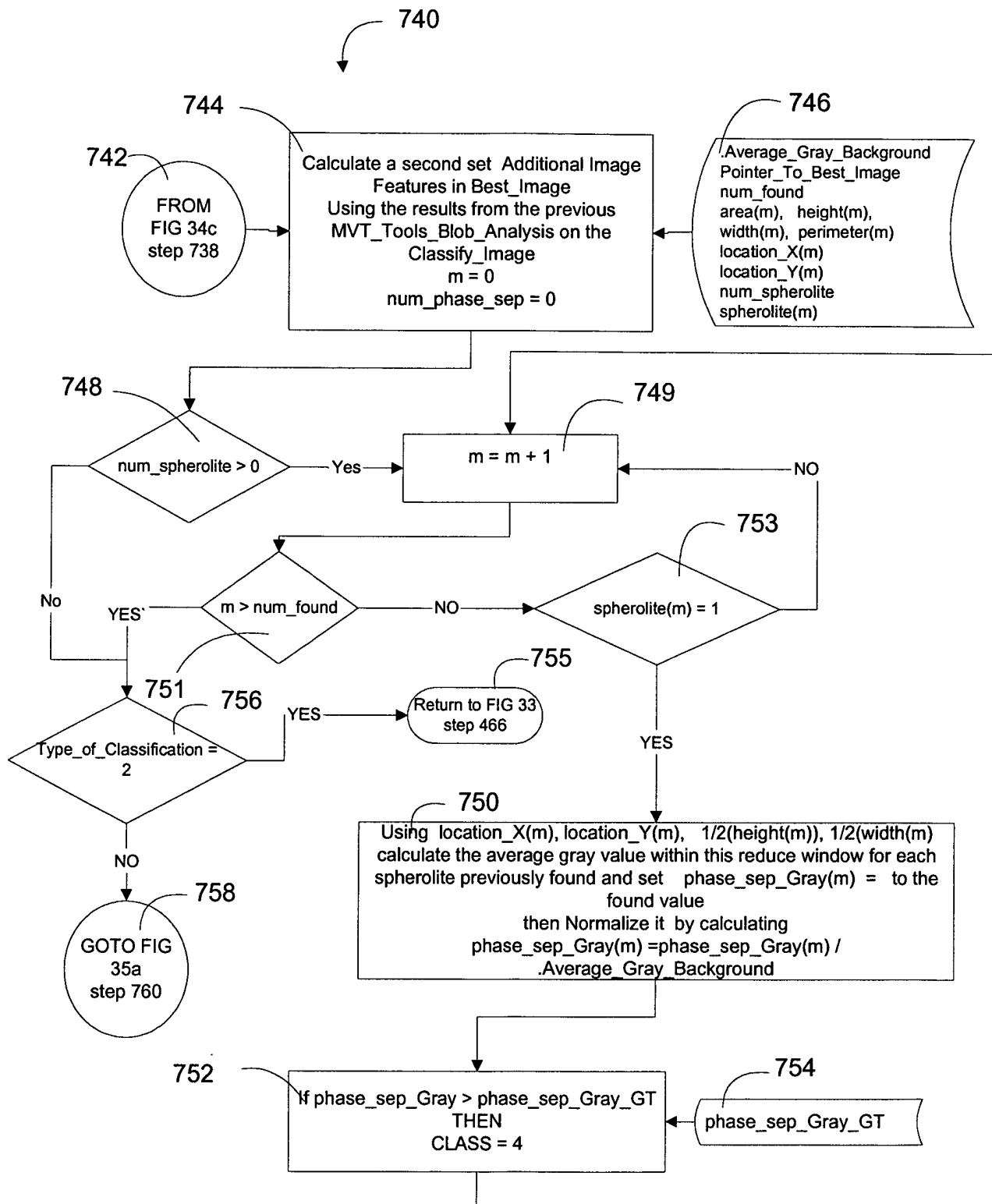


FIG. 34d

```

graph TD
    760((FROM FIG 34d step 758)) --> 762[762 Analyze previously measured features from FIG 34c to further separate CLASS 9 into sub-classes 9.0 through 9.9  
set m = 0  
First test if CLASS = 9, if not then goto step 778  
if true then  
CLASS = 9.0  
if num_found = 1 then goto step 768  
if not goto 769]
    762 --> 766[/Average_Gray_Background  
Pointer_To_Best_Image  
num_found  
area(m), height(m), width(m), perimeter(m)  
location_X(m)  
location_Y(m)  
num_spherolite  
spherolite(m)/]
    762 --> 768[768 m = 1  
HW_Ratio = Height(m) / Width(m)  
If HW_Ratio > needle_HW_GT  
or  
HW_Ratio < needle_HW_LT  
then CLASS = 9.2]
    768 --> 770[/needle_HW_GT  
needle_HW_LT/]
    768 --> 769((TO FIG 35b step 786))
    768 --> 771[771 If HW_Ratio > plate_HW_GT  
or  
HW_Ratio < plate_HW_LT  
then CLASS = 9.4  
THEN goto 773 ELSE goto step 778]
    771 --> 772[/plate_HW_GT  
plate_HW_LT/]
    771 --> 773[773 Using location_X(m), location_Y(m), 1/2(height(m)), 1/2(width(m))  
calculate the average gray value within this reduce window for the Blob  
previously found and set Chunk_Gray(m) = to the found value  
then Normalize it by calculating  
Chunk_Gray(m) = Chunk_Gray(m) / Average_Gray_Background]
    773 --> 774[774 If Chunk_Gray < Chunk_Gray_LT  
THEN  
CLASS = 9.6]
    774 --> 775[/Chunk_Gray_LT/]
    774 --> 776[776 If area(m) > Chunk_50_GT  
THEN  
CLASS = 9.8]
    776 --> 777[/Chunk_50_GT/]
    776 --> 780[780 If area(m) > gorgeous_GT  
THEN  
CLASS = 9.9]
    780 --> 779[/gorgeous_GT/]
    780 --> 778((778 Return to FIG 33 step 466))
    778 -- NO --> 760

```

FIG. 35a

FIG. 35a

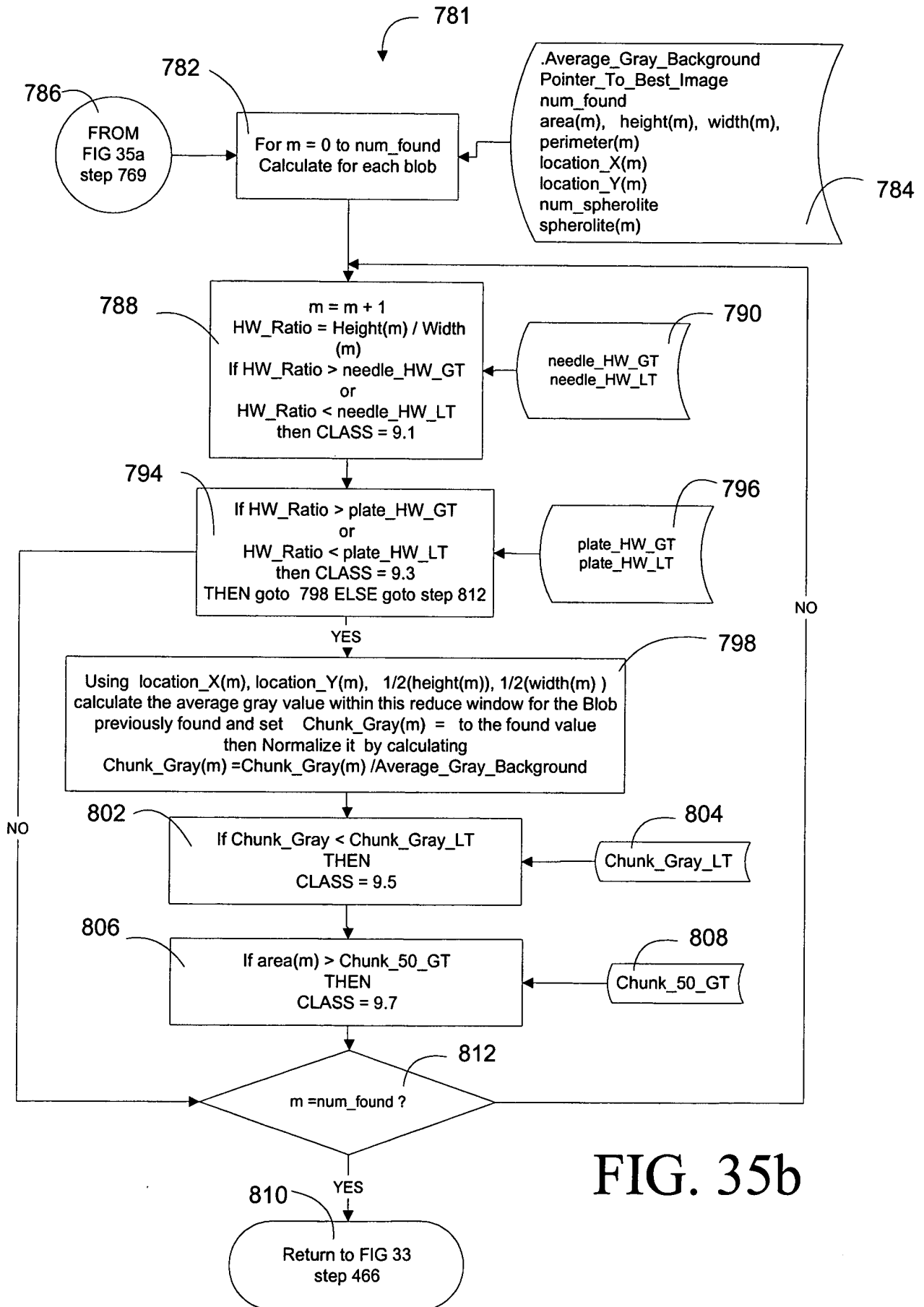


FIG. 35b

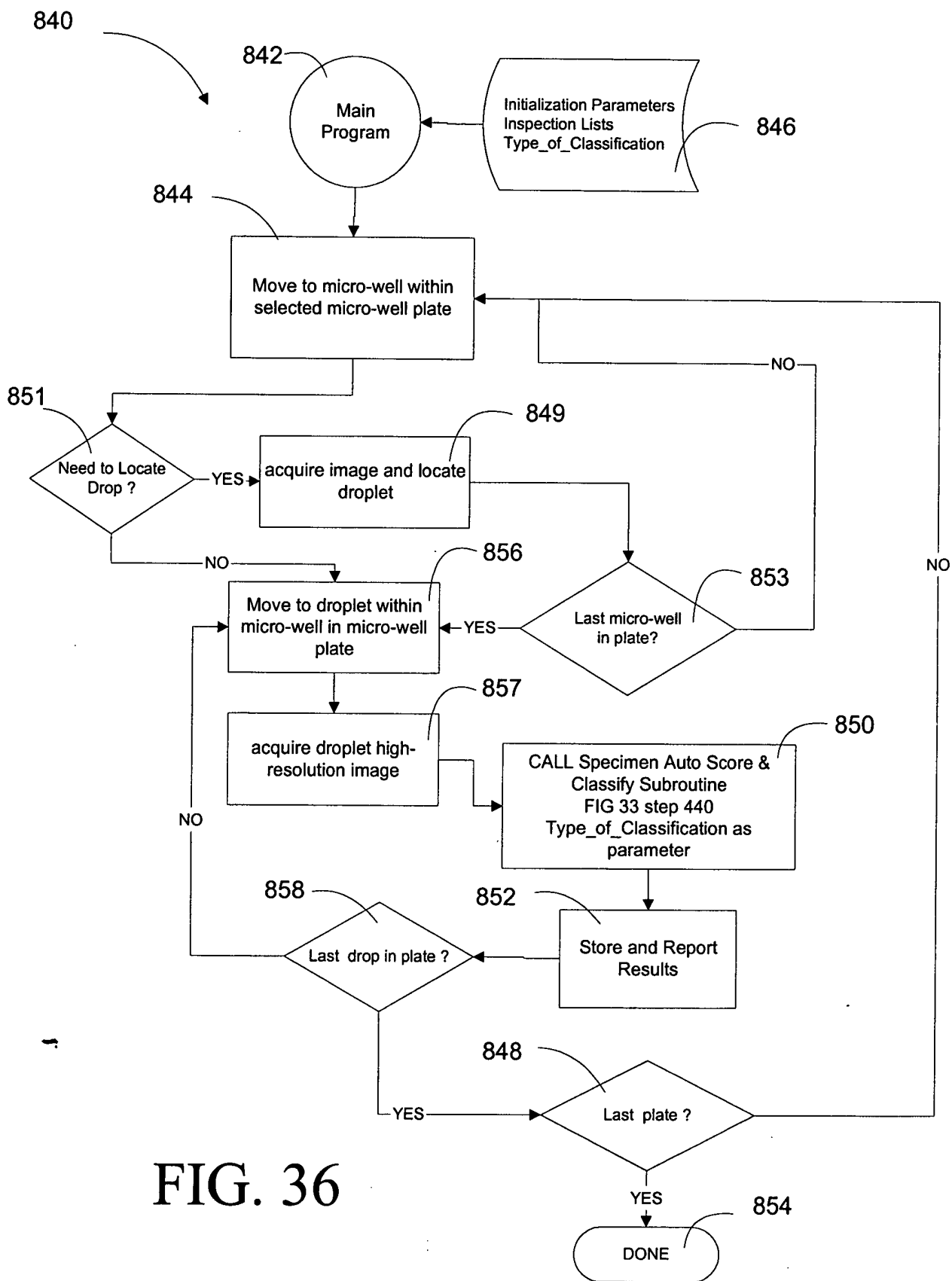


FIG. 36

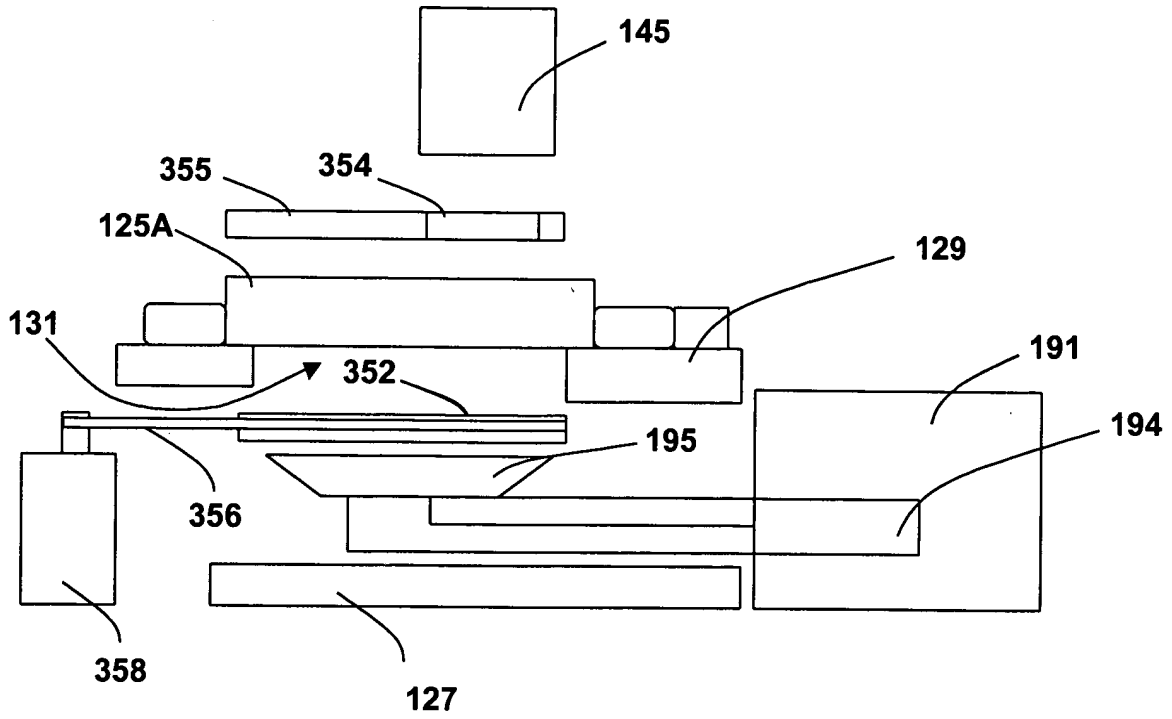


FIG. 37

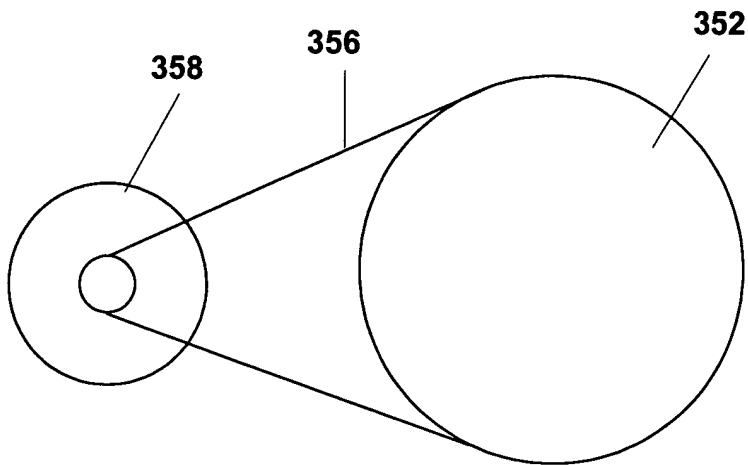


FIG. 38

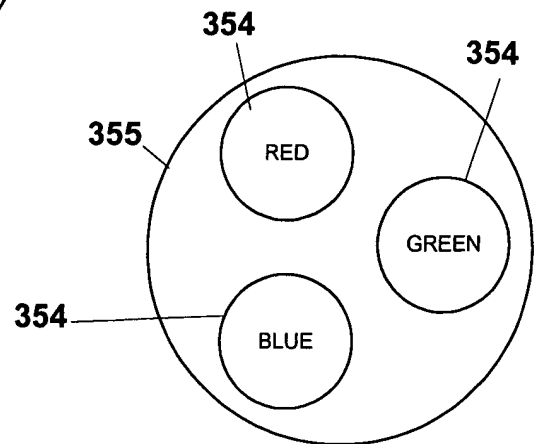


FIG. 39

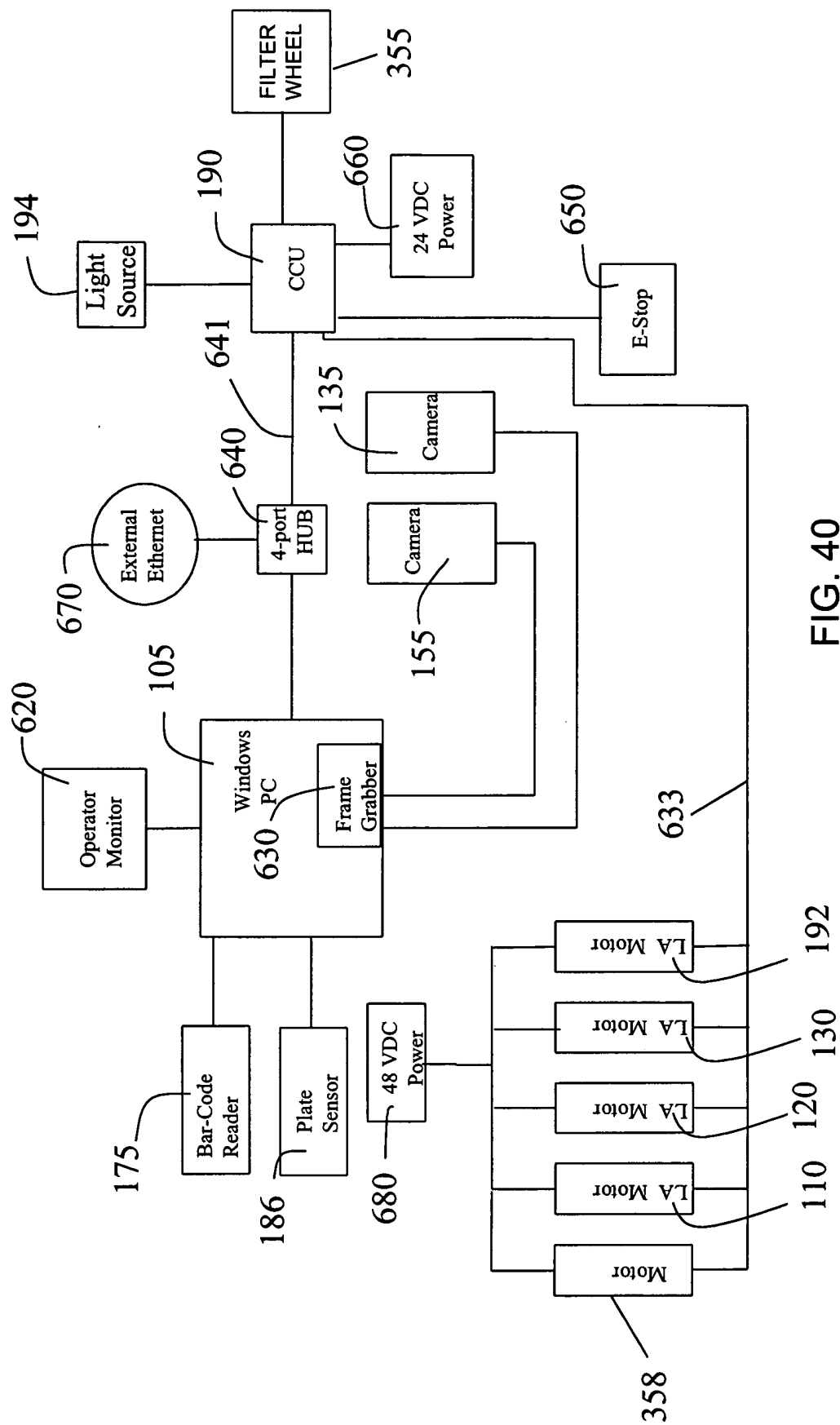


FIG. 40